HV20

High Definition Camcorder

Item Code: 2059B001
est. street price: $1099.00†
Available in April 2007

Bring True HD to Life

The name Canon has always meant photographic and broadcast television cameras with optical excellence, advanced image processing, superb performance, and the latest in technological advancements. Canon's new High Definition video camcorders are no exception.

The stylish Canon HV20 gives you the ultimate in HD video and digital photo quality with advanced features for the knowledgeable and demanding videographer. Its 10x optical zoom lens, 2.96 Megapixel CMOS image sensor and Canon's advanced DIGIC DVII image processor ensures meticulous detail and superior color reproduction. 24p Cinema Mode brings "film-look" options to the HV20 owner- as never before in this class. And, with its HD and Standard Definition recording modes, you can make the move to HD without making your SD equipment obsolete.

The HV20 is easy to use and delivers the high level of performance you've come to expect from Canon. It's the premium quality High Definition camcorder that sophisticated and discerning videographers have been waiting for.

† Prices and specifications subject to change without notice. Actual prices are determined by individual dealers and may vary.

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Features

The Image Quality of HD

The HV20 is the HD camcorder to go along with everything else in your HD world. It captures true 1080 High Definition resolution video in 16:9 format, using MiniDV cassette tapes. The HV20's true 16:9 widescreen HD image is made for your new HD widescreen TV. High Definition and widescreen are the future. Be sure you invest in that future with Canon's HV20.

At the same time, the HV20 gives you the flexibility to record in SD (standard definition) mode, too. That means you can enjoy the ultimate in HD video and photo quality, and still shoot SD video for viewing on your non-HD

HD Video Lens

10x/200x
OPTICAL ZOOM / DIGITAL ZOOM

HD Video Lens

Since 1934, Canon has been producing exceptional photographic lenses that are synonymous with unsurpassed optical performance. Because of Genuine Canon Optics, every Canon broadcast lens, 35mm film camera, digital camera and camcorder assures brilliant optical quality -- and the HV20 is no exception.

The HV20 comes with an outstanding High Definition video lens -- a 10x Genuine Canon Optical zoom. It's the lens you need to record long shots of your child on the soccer field, wide shots of beautiful landscapes, and everything in-between. And because it comes with three pre-set zoom speeds, you always get smooth, steady, professional looking zoom shots.

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Super spectra coating technology results in images with minimal flare and ghosting. Plus, the new lens' aspheric design reduces aberration and increases resolution, ensuring crisp, sharp video and enhancing the HD image quality. Not only that, but a new gradation ND system gives you better exposures in bright shooting situations.

True HD CMOS Sensor (1920 x 1080)

The HV20 is one of the first Canon camcorders to feature a Canon designed and manufactured CMOS image sensor. The CMOS image sensors in Canon's EOS Series Digital SLR cameras result in outstanding digital photographs. In the HV20, the CMOS sensor reproduces high-resolution images at 1920 x 1080 resolution with full HD information in video images.

Compared to a CCD, the HV20's CMOS's high color resolution and advanced color reproduction gives brilliant results. It is also unique in featuring Canon's proprietary noise reduction technologies for crisp, sharp images. Low noise technology also means that even in dimly lit scenes, the signal from each pixel is as pure as possible, with minimal noise or other aberrations. It's the ideal sensor for HD.

The HV20 uses an RGB Primary Color Filter with Bayer Pattern that separates light into red, green and blue color components. This results in vibrant images with deep, rich, accurate color and natural-looking tones similar to what you'd obtain from 3CCD camcorders. In addition, the Bayer pattern that delivers sharp, high definition image without creating false colors. As an added benefit, the CMOS sensor provides outstanding image capture in low light conditions.

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DIGIC DVII

DIGIC DVII is the next generation of Canon’s exclusive DIGIC DV signal processing technology. Designed specifically for HD, DIGIC DVII ensures optimal image quality. It also ensures optimal image quality for still images, even though video and still images have different color requirements. DIGIC DVII is just another one of Canon’s advanced technologies that make the HV20 an exceptional performer.

Thanks to DIGIC DVII image processing, the HV20 produces video with improved color reproduction -- especially in skin tones, and dark and light scenes. It also uses a hybrid noise reduction system that employs two types of noise reduction -- for high definition images that are crystal clear.

Plus, DIGIC DVII features improved continuous shooting of digital photographs with the HV20. You can shoot five (3.1 Megapixel) still images per second, and enjoy faster processing of your images to your memory card (1.4x normal card; 2.5x Hi Speed card). It also helps lower power consumption for longer battery life.

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SuperRange Optical Image Stabilization

Canon's innovative SuperRange OIS combines gyro- and image-sensors to give image stabilization through a wider range of camera motions. Some image stabilization systems correct one type of camera motion or vibration better than another. But Canon's SuperRange OIS corrects for a wide range of camcorder motion: the fast vibration you'd experience while recording from a moving car; the medium-speed motion of hand-held recording; and the slower motion of body sway. No matter what you're recording and how you're recording it, the HV20's stabilization design corrects camcorder shake instantly. SuperRange OIS also delivers steady images when shooting at long focal lengths.

In addition, optical stabilization keeps your shot steady without a loss in image quality -- something that can't be said for electronic image stabilization. And image stabilization isn't just for video; you can even use it for taking sharper, clearer digital photographs with your HV20. Thanks to Canon's expertise, it's easy to eliminate one of the telltale signs of amateur video and photography.

Instant AF (Auto Focus)

Since it is critical to achieve very sharp focus when shooting in High Definition, the HV20 camcorder features Canon's revolutionary Instant AF focusing system. It offers a dramatic improvement in auto focus speed and accuracy (compared to traditional autofocus systems). The Instant AF feature uses an external sensor, in combination with Canon's autofocus system, to help significantly decrease the time it takes to find focus, even in low light conditions. This system achieves focus instantaneously, reducing focus "hunting." The benefits of Instant AF are especially seen in high brightness and night shooting situations. With Instant AF, it's possible to capture fast, accurate focusing, even when following a moving subject.

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Brilliant Video

2.96 Megapixel HD CMOS

The HV20's CMOS sensor reproduces high-resolution images at 1920 x 1080 resolution with full HD information in video images. Compared to a CCD, the HV20's CMOS's high color resolution and advanced color reproduction gives brilliant results. It is also unique in featuring Canon's proprietary noise reduction technologies for crisp, sharp images. Low noise technology also means that even in dimly lit scenes, the signal from each pixel is as pure as possible, with minimal noise or other aberrations. It's the ideal sensor for HD.

In addition, the HV20 uses an RGB Primary Color Filter that separates light into red, green and blue color components. This results in vibrant images with deep, rich, accurate color and natural-looking tones similar to what you'd obtain from 3CCD camcorders.

DIGIC DVII

Thanks to DIGIC DVII image processing, the HV20 produces video with improved color reproduction -- especially in skin tones, and dark and light scenes. It also uses a hybrid noise reduction system that uses two types of noise reduction, for high definition images that are crystal clear.

Variable Zoom Speed Control

Another sure sign of amateur video is the unsteady zoom shot. But with the HV20's zoom control, you simply select one of three pre-set zoom speeds for smooth, steady, professional looking zooms.

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Level and Grid Markers

With the Level Marker feature, it's easy to keep your camera level for more professional looking video. Line up any horizontal lines in your shot -- such as the horizon -- to the marker and you can be sure your camcorder is level.

The HV20's Grid Marker feature lets you compose your shot accurately, according to the grid in your viewfinder. You can even choose from two different colors for the grid. This ensures that you see the grid, no matter what the background color of your shot.

Low Light Performance

Some of the most magical shots are taken at the end of the day or long after the sun has set. You won't miss any of them, thanks to the HV20's bright Ultra Video Light. The light lets you shoot subjects in color in low light up to 4.9 feet away. So, whether it's a shot of a sleeping baby, or a dramatic skyline at night, the HV20 captures all the moments you want to record.

24p Cinema Mode

24p Cinema Mode enables all aspiring moviemakers to achieve a professional "film-look." You can change the camcorder's frame rate to 24p, which provides the same frame rate as movie film. In addition, you can use the HV20's CINE setting, which changes the color and tonal characteristics, evoking the look and feel of a movie shown in a theater. For added flexibility, these settings can be used together or independently.

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Stunning Digital Photography

Canon’s advanced technology means your HD camcorder is also a high performance digital camera capable of capturing stunning 3.1 Megapixel photos in 4:3 aspect ratio to a miniSD™ card (2.07 Megapixels at 16:9). It’s like having an HD digital video camcorder and digital still camera -- all rolled into one. What’s more, the HV20’s many advanced photo features make it a camera that rivals other state-of-the-art digital cameras. With the HV20 you don’t just get video and photos -- you get the best of both.

2.96 Megapixel CMOS

The same 2.96 Megapixel CMOS image sensor that ensures sharp, vivid HD video also gives you brilliant digital photographs. Like the CMOS image sensors in Canon’s EOS Series digital SLR cameras, the HV20’s image sensor results in outstanding digital photographs. It gives an impressive resolution of 1920 x 1440 for sharp, crisp still images.

DIGIC DVII

DIGIC DVII features improved continuous shooting of digital photographs with the HV20. You can shoot 5 (3.1 Megapixel) still images per second, and enjoy faster processing of your images to your memory card (1.4x normal card; 2.5x Hi Speed card).

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Focus Features

Auto Intelligent Auto Focus ensures sharp images and gives creative flexibility. Even when your subject isn't in the center of the frame, the HV20's Ai-AF will automatically select from 9 metering frames on the screen to help bring images into sharp focus.

Since it is critical to achieve very sharp focus when shooting in High Definition, the HV20 camcorder features Canon's revolutionary Instant AF focusing system. It offers a dramatic improvement in auto focus speed and accuracy (compared to traditional autofocus systems). The Instant AF feature uses an external sensor, in combination with Canon's autofocus system, to help significantly decrease the time it takes to find focus, even in low light conditions. This new system achieves focus instantaneously, reducing focus "hunting." The benefits of Instant AF are especially seen in high brightness, and night shooting situations. It's even possible to capture fast, accurate focusing, even when following a moving subject.

And because a properly focused subject is more critical than ever with HD, the HV20 also features Focus Assist. This helps in capturing your subject in razor sharp focus. (When you start recording, this assistance is automatically cancelled.)

Auto Exposure Modes

Like any good digital still camera, the HV20 lets you choose from a range of exposure modes. Auto mode automatically sets the exposure, letting you concentrate on your subject. AV (aperture priority) mode lets you control depth of field by letting you choose the aperture. TV (shutter priority) mode lets you select the shutter speed for sharp, action shots. In P (program) mode, the camcorder adjusts camera settings automatically.

Program AE Mode

Your life happens everywhere, so the HV20 gives you settings that automatically result in the best exposure settings for different conditions and different subjects.

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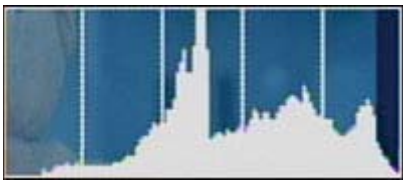
Portrait mode ensures shallow depth of field for a pleasing background to your shots of friends and family. Sports mode stops the action with faster shutter speeds. Night mode is designed to give you great shots after the sun goes down. Snow and Beach modes compensate for bright surroundings and give you the proper exposure on your subject. Sunset mode results in vibrant, well-exposed colors for one of the toughest subjects to capture. Use Spotlight mode when your child is on stage and in the spotlight -- literally -- and you want to make sure the exposure is right for them. And, Fireworks mode records brilliant images of another tough subject: the holiday fireworks display.

Simultaneous Photo Recording

With the HV20, you can record HD video and capture a 2 Megapixel photo to a memory card -- simultaneously. Simply press the photo button and you've got an e-mail ready digital photo to share with friends and family.

Histogram Display



For the advanced digital photographer, the HV20 comes with a Histogram Display -- a feature found in Canon's line of digital SLR cameras. The display allows you to see the brightness information of your still images, so you can adjust your exposures as you shoot.

Level and Grid Markers

With the Level Marker feature, it's easy to keep your camera level for more professional looking photographs. Line up any horizontal lines in your shot -- such as the horizon -- to the marker and you can be sure your camcorder is level.

The HV20's Grid Marker feature lets you compose your shot accurately, according to the grid in your viewfinder. You can even choose from two different colors for the grid. This ensures that you see the grid, no matter what the background color of your shot.

Still Capture from Tape

The versatile HV20 even lets you capture a still image from an already recorded movie. While playing the movie in your camcorder, simply press the photo button to capture a 2.07 Megapixel still frame on a miniSD™ card. It's another way the HV20 lets you enjoy and share your precious memories.

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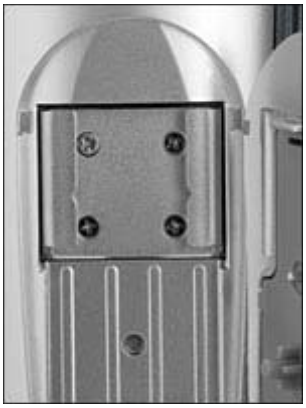
Your HV20's built-in flash lets you capture superb photos indoors and in low light conditions.

Edit and Share Your Video

You can edit and share your video with the HV20. Once you're connected to your computer, DV streaming and ultra-fast transfer of movies is a breeze. And because the HV20 uses the IEEE1394 protocol, there's no loss of picture or audio quality in the process. You'll want to share your brilliant HD memories with friends and family, and the HV20 makes it fast and easy.

HDMI and Accessory Shoe Terminals



With the HV20, sharing your High Definition video on your HD television is easier than ever. Only a single cable connects your camcorder to your TV for the highest quality playback (video and audio).

Another pro-level feature of the HV20 is the Advanced Accessory Shoe Terminal on the camcorder. Attach extras such as a video light or directional microphone without additional wires or batteries to raise the production value of the video you shoot.

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Share Your Photos

Your HV20 comes with a variety of features that make it simple to share your still photos.

Print/Share

PictBridge

Print/Share BUTTON

Print/Share turns your HV20 into a photo lab in the palm of your hand. Simply connect your camcorder directly to select Canon printers or any PictBridge-compatible printer with the supplied USB cable. Then, with a simple touch of the Print/Share button, print directly from your HV20 without going through a computer.

Print/Share also makes it easy to transfer your still images to your computer. Simply connect your HV20 and your computer, press the Print/Share button and your photos are downloaded to your computer.

miniSD™ Memory Card Compatible

The HV20 makes it easy to store digital photos on an optional miniSD Memory Card. Popularly used in today's newest cell phones and half the size of a standard SD card, the miniSD Card offers the benefit of high-capacity storage in a very small size.

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Additional Features

- **Built-in Electronic Lens Cover** means you never have to go looking for your lens cover again. Turn your camcorder on and the lens cover automatically opens. Turn it off, and the cover closes.
- **2.7” Widescreen LCD Screen** makes it easy to compose and review your shots. The bright screen lets you see exactly what your camcorder is recording, and what your widescreen TV will display later.
- **Playback of 60i/30F/24F/24p Video**
- **USB 2.0 Full Speed Terminal** for fast transfer of photos.
- **Analog-Digital Converter** lets you share the precious video memories you have stored on analog videotapes. Simply feed the analog signal from your TV, VCR or analog camcorder to your HV20 to convert the signal to digital for recording on DV tape. Or use your HV20 as a signal converter by connecting it between an analog device and another digital device.

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ANALOG▶DIGITAL
CONVERTER

- **Wireless Remote Control** lets you operate your HV20 from a distance, so you won’t be left out of the picture.
- **1 Year Parts And Labor Limited Warranty** provides protection long after other manufacturers’ warranties expire.

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Specifications

Digital Video

Power Supply (rated)	Supplied CA-570 Compact Power Adapter Supplied BP-2L13 Battery Pack
Image Sensor	1/2.7” CMOS Sensor, RGB Primary Color Filter
Total Pixels	Approx. 2,960,000
Effective Pixels	Movies: HDV/DV (WIDE): approx. 2,070,000 DV (NORMAL): approx. 1,550,000 Still Images: 16:9 still images: approx. 2,070,000 4:3 still images: approx. 2,760,000
Maximum Recording Time (with an 80-min. cassette)	SP: 80 min.
Lens	Zoom Ratio: 10x Optical/200x Digital Focal Length: f=6.1-61mm Zoom Speed: Variable/3 Fixed Zoom Speeds Max. F/Stop: f/1.8-3.0mm (when tapes are used) Filter Size: 43mm
Focusing System	Manual Focus Assist Functions: Magnifying, Peaking
Manual Exposure	Yes
Programmed AE	Auto, Program, Av, Tv, CINE, Portrait, Sports, Night, Snow, Beach, Sunset, Spotlight, Fireworks
Supported Playback Modes	1080/60i, 1080/24P, 1080/30F, 1080/24F
Max Shutter Speed	1/2000 1/500 (card)
Auto Date/Time	Yes
Record Search/Review	Yes
Minimum Focusing Distance	10 mm (wide)/1m (tele)
White Balance	Daylight, Shade, Cloudy, Tungsten, Fluorescent, Fluorescent H
Image Stabilization	SuperRange Optical (lens shift)
AF System	Instant AF, Through the Lens/Manual Focusing Possible
Viewfinder	Widescreen 0.27” Color Viewfinder/(Approx 123,000 pixels)
LCD Screen	2.7” Widescreen LCD (Approx. 211,000 pixels)
Recording Media	High Definition miniDV (recommended) (63min.) or miniDV cassette

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Audio	DV: 16 bit (2ch) 48 kHz 12 bit (4ch) 32 kHz 4ch synchronous recording not possible HDV: MPEG1 Audio Layer II (2 ch) (4-channel playback of tapes containing 4-channel recordings possible)
HDMI Terminal	Type A (19 pins) 480i/ 480p/1080i Format Supported
Microphone Terminal	3.5 mm Stereo Mini-jack
AV Mini Terminal/ Headphone Terminal	3.5mm 4 Pole Mini-jack
Dimensions	WxHxD 3.5 x 3.2 x 5.4 in
Weight (not including lens and battery pack)	1.2 lbs

Memory Card

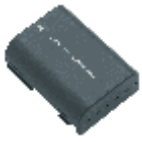
Number of Recording Pixels	4:3 mode: Approx. 2.76 Megapixels (1920 x 1440) 16:9 mode: Approx. 2.07 Megapixels (1920 x 1080)

Supplies & Accessories

Wide-Converter WD-H43
High-Def Compatible 0.7x Wide-Conversion Lens

Tele-Converter TL-H43
High-Def Compatible 1.7x Tele-Conversion Lens

Filter Set FS-43U II
Neutral Density Filter and MC Filter for 43mm



Battery Pack NB-2LH

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BP-2L14 Battery Pack
Lithium-Ion batteries, unlike Nickel-Cadmium batteries, have no “memory effect” which can reduce the usable power of the battery over time.

CB-2LW Battery Charger for Canon NB-2LH Batteries

VL-3 Video Light
The VL-3 Video Light connects to the Advanced Accessory Shoe and is powered directly by the camcorder.

Video Flash Light VFL-1
To be used with advanced accessory shoe combination video light & flash unit.

DM-50 Directional Stereo Microphone
Get near-professional quality sound for your movies with this shotgun stereo mic. Select from pure shotgun or shotgun + surrounding sound modes. Since the mic is powered by the camcorder’s power source, you remain cable free. Wind shields are included.

SC-2000 Soft Carrying Case
Protect your camcorder with the professional-quality SC-2000 Soft Carrying Case, featuring secure compartments for filters and extra battery packs.

Canon DigitalMaster HDVM-E63PR Mini DV Tape - For Professional Use
Canon HDV tape, The highest quality recording media for HDV camcorder. This is the recommended media for Canon’s HDV camcorder, the XL H1. (63min tape duration)

Car Battery Charger CBC-NB2

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CA-570 Compact Power Adapter
This compact adapter powers your camera from an AC power supply and charges your batteries on the camera. This allows for uninterrupted recording of your special events and keeps your batteries ready to go.

Component Cable CTC-100

4-pin to 4-pin IEEE 1394 cable
Allows the connection of a digital video camcorder to a computer or another digital video camcorder.

Interface Cable IFC-400PCU

VL-10Li Video Light
The VL-10Li is a 10-watt video light for both indoor and outdoor use. It accepts a Lithium-Ion battery pack for power and is attached to the camera's accessory shoe.

DVM-CL Digital Video Head Cleaning Cassette
This is used to clean the video head for a digital video camcorder.

DVM-E80 Digital Videocassette
This tape allows the recording of 80-minutes of video in SP mode and 120-minutes in LP mode.

DVM-E60 Digital Videocassette
This tape allows the recording of 60-minutes of video in SP mode and 90-minutes in LP mode.

Can't find the part or accessory you're looking for? Customer Support can help.
Call 1-800-828-4040 for assistance.

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What's in the Box

HV20 Kit Contents:

1. HV20 Camcorder
2. BP-2L13 Battery Pack (with Terminal Cover)
3. CA-570 Compact Power Adapter
4. STV-250 N Stereo Video Cable
5. WL-D87 Wireless Controller
6. IFC-300PCU USB Cable
7. CTC-100 S Component Cable
8. Digital Video Solution Disc for Windows & Macintosh

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